Summary

Work title: The vibration loading of the human organism through the child safety seats as a potential source of discomfort

Work objectives: Describe possibilities of the detection of the monotonous loading as one of the reasons of the discomfort of the child safety seat. Experimental comparing of three types fixation of child safety seats: 1. fixation by help of the seat belt; 2. fixation by the help of the system ISOFIX; 3. fixation by the help of both previous systems (safety belt and system ISOFIX)

Metod: Experimental measurement of vibrations of the child safety seat which was fixed by the help of the seat belt, child safety seat fixed by the system ISOFIX and child safety seat fixed by the help of both previous systéme (safety belt and system ISOFIX). And then following comparing of the transfer of these vibrations to passengers bodies which shall show contingent differences between various child safety seats.

Results: There are differences of transmissibility of vibrations by various types of fixation. In these experimental study the child safety seat fixed by help of safety belt and system ISOFIX in the same time is the best absorber of vibrations.

Key words: Child safety seats, Child, Monotony, Vibrations